

We Claim:

1. A prosthesis for a blood vessel or hollow body organ comprising a trunk including a prosthetic material and a scaffold that supports the prosthetic material to define a lumen within the trunk, the trunk including a main body region and a fastening region configured differently than the main body region for the receipt and retention in the second region of at least one fastener implanted into tissue by an external fastener attachment assembly.
2. A prosthesis according to claim 1, wherein the fastening region comprises an end region of the trunk.
3. A prosthesis according to claim 2, wherein the end region includes a stent ring sized and configured to provide a seal between the end region and adjoining tissue.
4. A prosthesis according to claim 1, wherein the fastening region includes prosthetic material that is different than a prosthetic material in the main body region.
5. A prosthesis according to claim 4, wherein the prosthetic material in the fastening region includes more layers than the prosthetic material in the main body region.
6. A prosthesis according to claim 4, wherein the prosthetic material in the fastening region includes a prescribed weave pattern not present in the main body region.
7. A prosthesis according to claim 6, wherein the prescribed weave pattern is denser than a weave pattern in the main body region.
8. A prosthesis according to claim 6, wherein the prescribed weave pattern comprises an X-

pattern.

9. A prosthesis according to claim 6, wherein the prescribed weave pattern comprises a sinusoidal pattern.

5 10. A prosthesis according to claim 4, wherein the prosthetic material in the fastening region includes a prescribed constituent not present in the main body region.

10 11. A prosthesis according to claim 10, wherein the prescribed constituent is metallic.

12. A prosthesis according to claim 10, wherein the prescribed constituent comprises a Kevlar™ material.

15 13. A prosthesis according to claim 10, wherein the prescribed constituent comprises a Vectran™ material.

14. A prosthesis according to claim 10, wherein the prescribed constituent is interwoven with material found in the main body region.

20 15. A prosthesis according to claim 1, wherein the fastening region includes a scaffold configuration that is different than a scaffold configuration in the main body region.

25 16. A prosthesis according to claim 1, wherein the scaffold includes self-expanding material.

17. A prosthesis according to claim 1, wherein the scaffold includes a malleable material.

18. A prosthesis according to claim 1, wherein the prosthetic material includes polyester.

30 19. A prosthesis according to claim 1, wherein the prosthetic material includes ePTFE.

20. A prosthesis according to claim 1, wherein the at least fastener comprises a helical fastener.

35 21. A prosthesis according to claim 1,

wherein the main body region includes a socket sized and configured to couple an auxiliary prosthesis structure to the trunk.

22. A prosthesis system for a blood vessel or
5 hollow body organ comprising a first prosthesis
comprising a trunk including a prosthetic material and a
scaffold that supports the prosthetic material to define
a lumen within the trunk, the trunk including a main body
region and a fastening region configured differently than
10 the main body region for the receipt and retention in the
second region of at least one fastener implanted into
tissue by an external fastener attachment assembly, the
main body region including a socket region, the
prosthesis system further including an auxiliary
15 prosthesis structure coupled to the socket region.

23. A method for deploying a prosthesis in a
tissue region in a blood vessel or hollow body organ
comprising the steps of providing a prosthesis comprising
a trunk including a prosthetic material and a scaffold
20 that supports the prosthetic material to define a lumen
within the trunk, the trunk including a main body region
and a fastening region configured differently than the
main body region for the receipt and retention in the
second region of at least one fastener implanted into
25 tissue by an external fastener attachment assembly,
deploying the prosthesis in the tissue region, and
implanting at least one fastener in the fastening region
to secure the prosthesis in the tissue region.

24. A method according to claim 23, further
30 including the step of deploying an auxiliary prosthesis
structure adjacent the prosthesis, and coupling the
auxiliary prosthesis structure to the trunk.

25. A method according to claim 23, wherein
the prosthesis is deployed using an intra-vascular tool.

35 26. A method according to claim 25, further

including the step of deploying using an intra-vascular tool an auxiliary prosthesis structure adjacent the prosthesis, and coupling the auxiliary prosthesis structure to the trunk.

- 5 27. A method according to claim 23, wherein the tissue region contains an aneurysm.